

*Listing of Claims*

1-12. (canceled)

13. (previously presented) A method of transmission in a contention-based access channel by a wireless transceiver, comprising:

a) transmitting a burst in said channel;

b) detecting whether said burst has collided with another burst in said channel;

and, if a collision is detected at said detecting step, waiting for a period determined according to a repeat parameter before repeating steps a) and b), wherein said repeat parameter is received by said transceiver and wherein said repeat parameter indicates a range and includes an increment by which said range is increased after each repetition of steps a) and b).

14. (previously presented) A method as claimed in claim 13, wherein said period is randomly or pseudo-randomly selected from said range indicated by said repeat parameter.

15-17. (canceled)

18. (previously presented) A method as claimed in claim 26, including detecting the content of said monitored data, wherein the demand for capacity is predicted according to said content.

19. (original) A method of allocating frequency channels to a plurality of wireless transceivers, comprising:

transmitting to each of said transceivers a forward frequency channel allocation signal indicating an allocation of one or more forward frequency channels which that transceiver is to receive; and

transmitting to each of said transceivers, in at least one said forward frequency channels assigned to that transceiver, a respective return channel allocation signal indicating an allocation of one or more return frequency channels in which that transceiver may transmit;

wherein, for each forward frequency channel, a set of preferred return frequency channels is stored, such that for each of said transceivers to which a specified one of said forward frequency channels is allocated, the allocated one or more return frequency channels is preferentially selected from said corresponding set of preferred return frequency channels.

20. (withdrawn) A method of allocating contention-based capacity to a plurality of wireless transceivers, comprising:

transmitting to said transceivers a first contention-based capacity allocation signal indicating a first channel capacity assigned for contention-based access to said transceivers;

receiving in said first channel capacity, transmissions from said transceivers;

detecting a level of usage by said transmissions of said first channel capacity;

determining, according to said level and said first channel capacity, a second channel capacity assigned for contention-based access to said transceivers; and

transmitting a second contention-based capacity allocation signal, indicating said second channel capacity, to said transceivers.

21-25. (canceled)

26. (original) A method of controlling transmission by a wireless transceiver in a channel shared with transmission by other transceivers, comprising:

monitoring data transmitted to said transceiver;

predicting, on the basis of said monitoring step, a demand for capacity in said channel by said transceiver, and

transmitting to said transceiver an allocation signal indicating an allocation in said channel determined according to said predicted demand.

27. (original) A method as claimed in claim 26, including generating a statistical model based on previous traffic flow to and from wireless transceivers, wherein the demand for capacity is predicted according to said statistical model.